

**IN THE CLAIMS:**

Please cancel claims 5-8 and 15-18 without prejudice to or disclaimer of the subject matter recited therein.

Please amend claims 1, 12 and 19 as follows:

**LISTING OF CURRENT CLAIMS**

1. (Currently amended) A system for detecting a connection status in a network, wherein the network comprises at least a first node and a second node, the system comprising:

a request frame, transmitted by the first node, including a source address comprising a media access control (MAC) address of the first node; and

a reply frame, transmitted by the second node after receiving the request frame, including a destination address comprising the MAC address of the first node[[:]].

wherein the first node determines the connection status in a link layer according to whether receiving the reply frame[[:]].

wherein the request frame and the reply frame are formed independent of an IP address,

wherein if the second node comprises a network interface card (NIC), the second node transmits the reply frame only when a destination address of the received request frame comprises a MAC address of the second node,

wherein if the second node comprises a network switch, the second node transmits the reply frame when the destination address of the received request frame comprises a MAC broadcast address; if the second node comprises the network switch, the second node selectively transmits the reply frame when the destination address of the received request frame comprises the MAC address of the second node.

2. (Original) The system as recited in claim 1, wherein the first node re-transmits the request frame if not receiving the reply frame within a predetermined response time period.
3. (Previously presented) The system as recited in claim 1, wherein both a destination address of the request frame and a source address of the reply frame comprise a MAC address of the second node.

4. (Previously presented) The system as recited in claim 1, wherein both a destination address of the request frame and a source address of the reply frame comprise a MAC broadcast address.
5. (Canceled)
6. (Canceled)
7. (Canceled)
8. (Canceled)
9. (Previously presented) The system as recited in claim 1, wherein both the request frame and the reply frame comprise an opcode for indicating the request frame and the reply frame respectively.
10. (Original) The system as recited in claim 1, wherein both the request frame and the reply frame comprise an identifier for indicating supporting the system.
11. (Original) The system as recited in claim 1, wherein the network is an Ethernet network.
12. (Currently amended) A method for detecting a connection status in a network, wherein a first node and a second node are connected via the network, the method comprising:
  - transmitting a request frame to the network by the first node, wherein the request frame includes a source address comprising a media access control (MAC) address of the first node;
  - transmitting a reply frame to the network by the second node when the second node receives the request frame, wherein the reply frame includes a destination address comprising the MAC address of the first node; and
  - determining, by the first node in a link layer, the connection status according to whether receiving the reply frame[[:]],wherein the request frame and the reply frame are formed independent of an IP address,
  - wherein if the second node comprises a network interface card (NIC), the second node transmits the reply frame only when a destination address of the received request frame comprises a MAC address of the second node,
  - wherein if the second node comprises a network switch, the second node transmits the reply frame when the destination address of the received request frame comprises a MAC broadcast address; if the second node

comprises the network switch, the second node selectively transmits the reply frame when the destination address of the received request frame comprises the MAC address of the second node.

13. (Previously presented) The method as recited in claim 12, wherein the first node determines the connection status through checking whether the reply frame is received within a predetermined response time period after the first node transmits the request frame.

14. (Previously presented) The method as recited in claim 13, wherein the first node re-transmits the request frame if not receiving the reply frame within the predetermined response time period.

15. (Canceled)

16. (Canceled)

17. (Canceled)

18. (Canceled)

19. (Currently amended) A network apparatus for detecting a connection status in a network, wherein the network apparatus and a second network apparatus are connected via the network, the network apparatus comprising:

a transmitter for transmitting a request frame to the network, wherein a source address of the request frame comprises a media access control (MAC) address of the network apparatus; and

a receiver for receiving a reply frame from the second network apparatus, wherein the second network apparatus transmits the reply frame according to the request frame, and a destination address of the reply frame comprises the MAC address of the network apparatus[[:]],

wherein the network apparatus determines the connection status in a link layer according to whether the reply frame is received from the second network apparatus[[:]],

wherein the request frame and the reply frame are formed independent of an IP address,

wherein if the second network apparatus comprises a network interface card (NIC), the second network apparatus transmits the reply frame only when a destination address of the request frame comprises a MAC address of the second network apparatus,

wherein if the second network apparatus comprises a network switch, the

second network apparatus transmits the reply frame when the destination address of the request frame comprises a MAC broadcast address; if the second network apparatus comprises the network switch, the second network apparatus selectively transmits the reply frame when the destination address of the request frame comprises the MAC address of the second network apparatus.

20. (Previously presented) The network apparatus of claim 19, wherein the network apparatus re-transmits the request frame if the reply frame is not received within a predetermined response time period.